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Action	Info	Routing	Attach	Initial
		Date 7/6/05		
	✓	Bureau Chief		
		Consultant plans Eng		
		Design Supervisor		
		CTEP Engineer		
	✓	ALL ENGINEERING STAFF		
	✓	ALL DESIGN CONSULTANTS		
	✓	File		

Memorandum

To:

Paul Ferry, P.E.
Highways Engineer

June 29, 2005

Subject:

The purpose of this memo is twofold:

To provide a standard practice for surfacing treatment when the existing paved surface has a substantial amount of crack sealing

The inclusion of tack in the payment for plant mix

Isolation Lifts

After the new Surfacing Design Guidelines were approved on April 7, 2005, some questions have been raised concerning the method of application and quantity of leveling when the existing paved surface has a substantial amount of crack sealing. We are providing the following information in response to these questions.

When a plant mix overlay is placed on a surface that has been crack sealed, the heat from the plant mix overlay causes the sealant to expand resulting in a bump in the riding surface. Construction personnel have determined that placing an extremely thin lift of plant mix prior to placing the primary overlay will reduce the effects of the sealant on the riding surface. This application has been called an isolation lift or preleveling. We recommend that the term isolation lift be used since it more accurately describes the intent of this work.

The decision to use an isolation lift will be made at the Preliminary Field Review. The use of isolation lifts generally applies to pavement preservation projects, although they could be used on designed overlay projects with plant mix thicknesses less than 0.30'. Isolation lifts are not needed on projects that include milling of the travel lanes. We do recommend that milling be considered as an option for treating surfaces that have extensive crack sealing.

To ensure that adequate surfacing is provided in the plans, a minimum 0.22' overlay thickness will be required whenever an isolation lift is needed. The isolation lift is placed with a paver or other approved method to a minimum thickness of 0.07 feet and is limited to the travel lanes. Leveling used to correct distortion in the road's surface may be

placed in conjunction with the isolation lift, but this will depend on the project specific characteristics of the road surface.

The quantity for the isolation lift is included in the overall lift thickness (i.e. a 0.22' overlay will be shown in the typical section even though the 0.07' isolation layer will be placed in a separate operation). The attached special provision describing this work should be included in the plans package. Leveling used to correct distortion in the road's surface will continue to be shown as a separate quantity in the Additional Surfacing summary.

Although the overlay thickness for pavement preservation projects is limited to 0.20', The FHWA has made an exception to allow the use of the 0.22' thickness to address the crack sealing issue.

Tack

Due to the implementation of the ride specifications, we no longer specify the number of lifts of plant mix on most projects. Consequently, it is difficult to estimate the quantity of tack needed between lifts. After discussing this issue with the Construction Engineer and the Materials Engineer, we have decided to eliminate tack from the plans on a trial basis. The cost of tack will be included in the cost of the plant mix quantities.

If lifts of plant mix are specified, as on projects where two different asphalt cement PG-binders are used, the quantities of tack between lifts will be included in the cost of each lift.

This change does not apply to aggregate tack. Aggregate tack quantities will still be calculated and shown in the plans in accordance with the current practices.

Effective Dates

The change to eliminate tack takes effect for projects that will be submitted to the checkers after August 1, 2005

The changes for the isolation lift should be incorporated into projects that will be submitted to the checkers after August 1, 2005

If you have questions concerning this, please contact me at 444-6244.

Pf.

Attachment

Distribution:

James Walther,	Preconstruction Engineer	
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Larry Frideres,	Road Plans Checker	"
Kevin Farry,	Road Plans Checker	"

1. PRELEVELING OVER RUBBERIZED CRACK SEALING -

A. Prelevel the project in the areas of excessive and exposed crack seal material as directed by the Project Manager. Using a paver, prelevel to a minimum thickness of 0.07 feet in the travel lanes only. Perform the preleveling just ahead of each days paving operation.

B. Compact using an oscillating-axel pneumatic-tired roller with a minimum 44 kip operating weight and not less than 251 lb. per 1 in. width of tire tread. Compact the material to the density specified by the Project Manager.

C. To correct other roadway irregularities prelevel the project as per the Standard Specifications for Road and Bridge Construction 1995 Edition.

D. Payment at the contract unit prices for plant mix and related items is full compensation for all resources necessary to complete these items of work under the contract

Comments

WE PROBABLY SHOULDN'T CALL THIS PROVISION PRELEVELING SINCE I SAID IT SHOULD BE CALLED AN ISOLATION LIFT IN THE MEMO. INSTEAD OF SAYING "PRELEVEL", MAYBE WE SHOULD SAY "PLACE THE ISOLATION LIFT"

HOW DO WE INCLUDE LEVELING IN THIS WORK. LEVELING QUANTITIES ARE NOT NECESSARILY APPLIED UNIFORMLY

1. ISOLATION LIFT

This work includes placement of a plant mix surfacing isolation lift over rubberized crack sealing material.

A. Place an isolation lift of plant mix bituminous surfacing in areas of excessive and exposed crack seal material as directed by the Project Manager. Using a paver, or other approved methods, place the layer to a minimum thickness of 0.07 feet in the travel lanes only. Perform this work just ahead of each days paving operation.

B. Compact the isolation layer using an oscillating-axel pneumatic-tired roller with a minimum 44 kip operating weight and not less than 251 lb. per 1 in. width of tire tread. Compact the material to the density specified by the Project Manager.

C. Payment at the contract unit prices for plant mix bituminous surfacing and related items is full compensation for all resources necessary to complete these items of work under the contract